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ABSTRACT

The links between sixth-grade reading achievement, race, and the socioeconomic status of schools and neighborhoods in the Kansas City School District (KCSD) from the 1950s to the present were examined. The data show that black students tended, as early as 1956, to be in poverty schools with low achievement and that this pattern has persisted. In 1957, predominantly black schools were in lower status neighborhoods than white schools, with 54% of adults in black school neighborhoods and 31% in white school neighborhoods having low status jobs. The low socioeconomic status of predominantly black schools was still in evidence in 1980, when 80% of students at schools which were 95% or more black in 1957 were eligible for subsidized lunch. Reading achievement in these schools was and remains concomitantly low. Average sixth grade reading scores at predominantly black schools were 5.64 in 1957 (the national average was 6.8), 5.45 in 1960, 5.03 in 1970, and 5.54 in 1980. In contrast, average scores at predominantly white schools were above the national average in 1957 and 1960 (7.43 and 7.28 respectively). During the 1960s and 1970s the KCSD changed from a largely white middle class school district to a predominantly black working class one. And by 1981 the percentage of KCSD schools that were low achieving poverty schools had jumped from the 19% of 1960 to 80%, thus underlining the strong links between race, social status, and achievement. (CMG)

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Long-Term Relationships Between Socioeconomic Status, Race and Achievement in A Big-City School District

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This longitudinal study of sixth-grade reading achievement and socioeconomic status of schools and neighborhoods in the Kansas City, Missouri School District (KCSD) examined relationships between sixth-grade reading means and socioeconomic data beginning in the 1950's.

By 1956, the KCSD had taken steps to eliminate the dual system of legally-mandated separation between white and black schools. However, even at this early period, black students tended to be in poverty schools with low achievement, and the pattern has persisted into the 1980's. The pattern was made clear by examining data (Table 1) which showed that predominantly black schools were in lower status neighborhoods in 1957 than were predominantly white schools (54% and 31%, respectively, using 1950 census data on Percent of Adults in Low Status Occupations).

Table 1

	Elementary Schools Less Than Ten Percent Black in 1957			Elementary Schools More Than 95 Percent Black in 1957		
	Mean Score	(Standard Deviation)	N	Mean Score	(Standard Deviation)	N
Percent of adults in school neighborhood in low status occupations, 1950*	30.79	(16.73)	43	54.29	(20.67)	14
Percent of adults in school neighborhood in low status occupations, 1960	36.06	(14.49)	52	64.67	(13.53)	14
Percent of adults in school neighborhood in low status occupations, 1970	40.80	(16.33)	51	63.95	(8.63)	13
Percent of students eligible for subsidized lunch, 1980	56.42	(17.74)	38	80.38	(9.41)	8
Sixth grade reading, 1957	7.43	(1.17)	42	5.64	(.65)	10
Sixth grade reading, 1960	7.28	(1.05)	52	5.45	(.59)	8
Sixth grade reading, 1970	5.94	(.71)	52	5.03	(.34)	11
Sixth grade reading, 1980	5.90	(.96)	23	5.54	(.37)	7

*Low status occupations as defined in the U.S. Census, i.e., laborers, service workers, and operatives.

The low socioeconomic status of predominantly black schools was still in evidence in 1980 when eighty percent of students at schools 95 percent or more black in 1957 were eligible for subsidized lunch. Reading achievement in these schools was and remains concomitantly low. Average sixth grade reading scores at predominantly black schools were 5.64 in 1957 (compared with the national average of 6.8), 5.45 in 1960, 5.03 in 1970, and 5.54 in 1980. By way of contrast, average sixth grade achievement at predominantly white schools in 1957 was above the national average in 1957 and 1960 (7.43 and 7.28, respectively).

It should be noted that many of the schools predominantly white and high in occupational status in 1957 were no longer so in 1970 and 1980. At the same time, sixth grade reading achievement fell far below the national average by 1970.

The same link between race, socioeconomic status, and reading achievement can be seen in statistical analysis of data on these variables. For example, the following multiple regression data delineate relationships between race, socioeconomic status, and achievement in 1957.

Table 2

Multiple Regression Using Percent Black Students and Percent Low Status Workers to Predict Sixth Grade Reading Achievement in 1957 (N=55)

Dependent Variable	R^2	Beta	F	r
1. Percent of adults in school neighborhoods in low status occupations, 1950	.73	-.81	94.15	-.86
2. Percent black students, 1957	.74	-.09	1.14	-.52

The preceding analysis shows that 1950 Percent of Low Status Workers in 55 elementary school neighborhoods in the KCSD "predicted" (or "explained") 73 of the variation (i.e., variance) in sixth grade reading averages at these schools in 1957.* In this particular analysis, knowing the percent of black students in 1957

*Squared multiple correlations (R^2) shown in Table 2 and subsequent tables have been adjusted for sample size.

did not substantially improve the prediction (or explanation) of variation in sixth grade reading averages. However, the Percent Low Status Workers in 1950 was correlated (r=.53) with Percent Black Students in 1957. Commonality analysis indicates that the relationship between Percent Low Status Workers in 1950 and Percent Black Students in 1957 accounts for .27 of the variation in 1957 reading achievement, with Percent Low Status Workers in 1950 independently accounting for .46 of the .74 explained variance.

It should be noted that conclusions in this type of research can be easily manipulated by changing the variables used for analysis and the way they are analyzed. For example, the following data show another regression substituting the socioeconomic ratio in school neighborhoods in 1950 for the percent of low status workers. (The socioeconomic ratio, which is the ratio of middle-class occupations to working-class occupations, has been used in a number of studies in education and sociology.) This analysis indicates that the Socioeconomic Ratio

Table 3

Multiple Regression Using Percent Black Students and the Socioeconomic Ratio to Predict Sixth Grade Reading Achievement in 1957 (N=55)

	Dependent Variable	R^2	Beta	F	r
1.	Socioeconomic ratio in 1950	.29	.46	20.14	.55
2.	Percent black students in 1957	.45	-.42	16.76	-.52

and Percent Black Students in 1957 share eleven percent of the variation in accounting for 1957 sixth grade reading averages at the 55 elementary schools in the sample, while the Socioeconomic Ratio independently accounts for eighteen percent of the variance and Percent Black Students in 1957 independently accounts for sixteen percent. This particular analysis would lead one to conclude that social class and race are equally important in influencing school achievement. Notwith-

standing the possibilities of arriving at different conclusions by manipulating the selection and analysis of variables, the underlying fact is clear: socio-economic status, race, and school achievement are closely associated in the KCSD, as they are in other school districts.

Similar relationships between race and socioeconomic status, and between these variables and school achievement, persisted after 1957 and into the 1980s. For example, 1960 achievement analysis is shown below.

Table 4

Multiple Regression Using Percent Black Students and Percent Low Status Workers to Predict Sixth Grade Reading Achievement in 1960 (N=61)

Dependent Variable	R^2	Beta	F	r
1. Percent of adults in school neighborhoods in low status occupations, 1960	.67	-.75	65.46	-.82
2. Percent black students, 1960	.68	-.12	1.66	-.58

As indicated above, Percent Low Status Workers in 1960 and Percent Black Students in 1960 explained 68 percent of the variation in sixth grade reading averages at 61 elementary schools in 1960. Of this 68 percent, the two variables shared in predicting 33 percent, and Percent Low Status Workers independently predicted 34 percent.

Social class, race, and achievement remained strongly related in 1970, as shown in Table 5 below. As indicated in the Table, the three social class measures plus Percent Black Students in 1970 explained 79 percent of the variation in 1970 sixth grade reading achievement averages at the 72 schools in the sample. Percent Black Students in 1970 was strongly correlated with Percent of Adults Classified as Laborers in 1970 (r=.61), and the three social class measures were highly correlated with each other (e.g., Percent of Adults Classified as Laborers

Table 5

Multiple Regression Using Three Social Class Variables and Percent Black Students to Predict Sixth Grade Reading Achievement in 1970 (N=72)

	Dependent Variable	R^2	Beta	F	r
1.	Percent of Adults Classified as Laborers in 1970, in school neighborhoods	.64	-.27	7.75	-.80
2.	Percent black students, 1970	.71	-.38	29.56	-.71
3.	Percent housing units vacant, 1970	.78	-.30	17.15	-.71
4.	Socioeconomic ratio in 1970	.79	.17	5.00	.64

in 1970 and the Socioeconomic Ratio were correlated at .68).

As shown in Table 6, race, socioeconomic status and school achievement continued to be closely asspciated in 1980. For 1980, the three variables* Percent Students Eligible for Subsidized Lunch in 1980, Percent Black Students in 1980, and Percent Overcrowded Housing in School Neighborhoods in 1980 explain 84 percent of the variation in 1980 sixth grade reading averages at 32 elementary schools.

Table 6

Multiple Regression Using Percent Black Students, Percent in Overcrowded Housing in School Neighborhoods, and Percent Students Eligible for Subsidized Lunch in 1980 to Predict Sixth Grade Reading Achievement in 1980 (N=32)

	Dependent Variable	R^2	Beta	F	r
1.	Percent students eligible for subsidized lunch in 1980	.72	-.63	47.91	-.85
2.	Percent black students in 1980	.81	-.24	6.04	-.64
3.	Percent overcrowded housing in school neighborhoods in 1980	.84	-.21	4.86	-.67

*Occupational status scores for school neighborhoods in 1980 were not available to us at the time of this analysis. Percent Overcrowded Housing in School Neighborhoods in 1980 is the census definition tabulating units with more than 1.5 people per room.

Finally, the close and continuing link between race, social class, and school achievement again is apparent in historical data relating recent achievement level to socioeconomic information more than two decades earlier. As shown in Table 7, knowing only the Socioeconomic Ratio of School Neighborhoods in

Table 7

Multiple Regression Using Percent Black Students in 1962 and Socioeconomic Ratio of School Neighborhoods in 1950 to Predict Sixth Grade Reading Achievement in 1980 (N=32)

Dependent Variable	R^2	Beta	F	r
1. Socioeconomic ratio of school neighborhoods in 1950	.32	.52	11.83	.59
2. Percent black students in 1962	.36	-.24	2.69	-.39

1950 and the Percent Black Students in 1962, one can explain 36 percent of the variation in sixth grade average reading scores at 32 elementary schools in 1980. During the 1960s and 1970s the KCSD changed from a largely white and substantially middle-class school district to a predominantly black and working-class district. Yet despite this and other related trends which changed the composition of neighborhoods and schools in the district, the strong linkage between race, social class, and school achievement persisted through time. The effects of de jure segregation which helped create a sizable black working-class population and low achievement among black students before 1954 were not eliminated after 1954; the major change in the past three decades has been that there now are even more low-achieving, working-class black students victimized by the negative effects of earlier segregation.

Another perspective for viewing this trend over time is provided by examining the relationship between the poverty status of schools and sixth-grade achievement. Previous research on achievement in Kansas City elementary schools showed that from

the earliest period for which data are available in this study, virtually all schools above a "critical mass" in percentage working class students (poverty schools) have had relatively low achievement.* For example, in 1960 fourteen of the 73 elementary schools were above 35 percent on Percent of Adults in School Neighborhood in Low Status Occupations, and all fourteen of these poverty schools had average sixth-grade reading scores below 6.3. This relationship has continued to the present: in 1981, all 28 of the schools with more than 40 percent of students eligible for subsidized lunch had average scores below 6.3. These low-achieving poverty schools comprised 19 percent in 1960, and 80 percent in 1981. Thus the loss of middle-class white and black students between 1960 and 1982 has transformed the KCSD into a low-achieving, inner-city district in the 1980s.

*Bruce Blake Morgan, The Relationship of Social Class to School Achievement in Kansas City, Missouri, 1950-1970. Unpublished Ph.D. dissertation, University of Missouri-Kansas City, 1979.

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